

# **DHRUBA CHAND HALDER COLLEGE**

# **Gender Audit Report**

2021-22









# ACKNOWLEDGEMENT

**HUMAN DEVELOPMENT CENTRE**, Joynagar, South 24 PARGANAS, West Bengal, thanks the Principal of **DHRUBA CHAND HALDER COLLEGE**, Dr. Satyabrata Sahoo, the IQAC Coordinator Smt. Sudakshina Sengupta and the Convenor of the Gender Sensitization Committee, Dr. ManikaRakshit, for having confidence in the Centre and entrusting us with the work of conducting and preparing a Gender Audit for the year 2021-22. We are also thankful to the other teaching and non-teaching staff members for their co-operation in preparing this report.





PRINCIPAL Dhruba Chond Halder College P.O.- D. Barasat, P.S.- Jaynagar South 24 Parganas, Pin- 743372

# **GENDER AUDIT REPORT**

**Dhruba Chand Halder College** at Dakshin Barasat, in the Sealdah-Namkhana section of the Eastern Railways, South 24 Parganas, West Bengal, formerly known as Dakshin Barasat College, was established in 1965, as a co-educational undergraduate college, for providing quality-higher-education to hundreds of students in the vast Sunderban belt, one of the largest mangrove forests in the world, on the Gangetic delta.

The College provides exceptional academic opportunities to a vast cross-section of people in the district, through a plethora of courses offered under Distance Learning Centre, along with its regular courses and contemporary Add-on Courses. This College offers 19 undergraduate programmes in three main streams i.e., Arts, Commerce and Science.

At DCH College, a co-educational institute, the need for maintaining safety and security and keeping the ambience free from all encumbrances is a priority. Care is taken, so that the College remains an abode of peace and harmony.

The Nari Sansad or the Women's Development Cell is entrusted with the duty of organizing at least two meaningful programmes every year, on relevant gender issues.

In conjunction with the prescribed syllabus, the faculty is advised to engage students on latest debates and issues surrounding women's empowerment.

All concerned departments are advised to carry out programmes to help to disseminate knowledge on the theme of Women's Potentialities, Opportunities and Practical Problems and Solutions.





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#### What is Gender Audit?

A Gender Audit is a process of assessment of the gender equality in an organization adopting means by which the main gender biases are identified. A gender audit usually takes into account different issues such as: the status of gender equality in different policies guiding an institution, involving both women and men in its decision-making structure, and understanding the behaviour of staff members of both sexes in relation to a particular issue.

## **Objectives of the Audit Report:**

The Gender policy aims to ensure "equality of all opportunities between women, men, girls and boys so that development efforts have an equal impact on all gender". It facilitates proper integration of gender issues in development to ensure full participation of women and men in their productive lives.

For effective dissemination of knowledge, an educational institution needs to be unbiased and impartial, especially in its treatment of both men and women. The Constitution of India stands as the source of guidance to any centre of education. The sections on Fundamental Rights and Duties, Directive Principles and the Preamble, related to this aspect are many: **Article 14** requires 'equality before law' and ensures universal rights for all, regardless of birth, ethnicity, gender or race; **Article 15** (1) authorizes the state not to isolate any person based on sex, race, nationality, caste, ethnicity or any of them; **Article 15** (3) empowers the state to prepare special arrangements to benefit women with the help of laws such as the Domestic Violence Act, Workplace Harassment Law, Sexual Abuse Legislation, Amendment to the Hindu Succession Act etc; **Article 16** proclaims equal opportunity for all; **Article 39** (d) ensures equal wages for equal work for all and **Article 42** states that governments are to provide fair and reasonable working conditions and maternity assistance.

The University Grant Commission has also focussed on these aspects and accordingly many Gender positive initiatives are required to be implemented and assessed periodically. The gender balance is thus maintained in an institution. Accordingly all Institutes of Higher Education have to conduct a Gender audit in their campuses to ensure Gender neutrality of facilities and assess/ monitor programmes for Gender Sensitization.

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## **Methodology:**

As part of the Audit, we collected information from the different stakeholders, on the curriculum, teaching-learning, research and innovations etc. and also conducted an online survey through a designed Google form for the Students, Faculty and the non-teaching staff in order to gather and collate the respondent's perception on the prevailing Gender sensitive practices /facilities.

Gender sensitive indicators:

- a. Curricular aspects
- b. Teaching, Learning and Evaluation
- c. Research and Publications
- d. Resources & Infrastructure
- e. Student participation, involvement and placement
- f. Organization and Management
- g. Healthy Practices

## **Observations**:

After a thorough study and analysis of the facts provided by Dhruba Chand Halder College, it is observed that the College promotes gender equality through various means and mechanisms.

- There is significant representation of female staff in the total strength of the employees.
- The Internal Complaints Committee (Sexual Harassment) and the Grievance Redressal Committee have been formed, to look after the interests of all.
- The grievances are resolved in a confidential and timely manner.
- Child Care Leave and Maternity Leave are granted to all female staff members, irrespective of age and position.
- Equal opportunities are provided to men and women, in terms of sports, cultural, curricular and co-curricular events organized in and outside the campus.
- The College organizes special sessions /workshops /webinars and Gender sensitization programs with women related themes to foster gender equality, specially among students. College Women Development Cell or the 'Nari Sangshad' is highly active and work whole year for students and staff. It supports the faculties in organising seminar, workshops, lectures etc. on women issues.

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## **Curricular Aspects:**

Teachers of DCHCollege participate in following activities related to curriculum development and assessment of the affiliating University

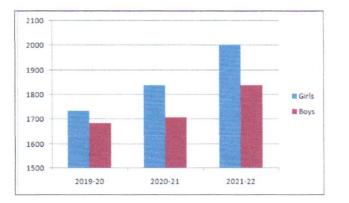
- Setting of UG Question papers, evaluating University examination papers.irrespective of gender.
- Designing and conducting Add-on-Courses.
- Many courses taught at the Undergraduate level at Dhruba Chand Halder College, focus on Women's Studies, theories related to women's issues and feminism.

## **Teaching-Learning**:

Gender segregated data on students and faculty in various departments:

| Year    | Number | Girls | Boys |
|---------|--------|-------|------|
| 2021-22 | 3839   | 2004  | 1836 |
| 2020-21 | 3547   | 1838  | 1709 |
| 2019-20 | 3420   | 1736  | 1684 |

## Total number of students admitted to first semester:



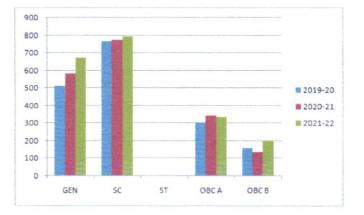




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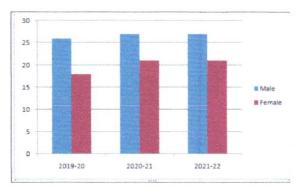
| Year    | GEN | SC  | ST | OBC A | OBC B | TOTAL |
|---------|-----|-----|----|-------|-------|-------|
| 2021-22 | 674 | 796 | 2  | 334   | 198   | 2004  |
| 2020-21 | 582 | 774 | 0  | 345   | 137   | 1838  |
| 2019-20 | 510 | 766 | 1  | 301   | 158   | 1736  |

## No. of female students in different categories:



## Gender profile of the Full -time Teaching Staff:

| Academic Year | Male | Female | Total |
|---------------|------|--------|-------|
| 2021-22       | 27   | 21     | 48    |
| 2020-21       | 27   | 21     | 48    |
| 2019-20       | 26   | 18     | 44    |



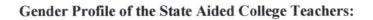


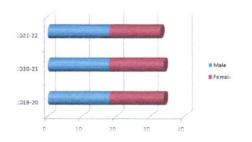


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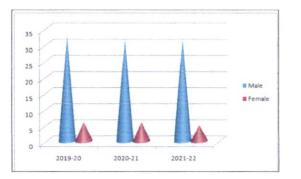
| Year    | Male | Female | Total |
|---------|------|--------|-------|
| 2021-22 | 18   | 15     | 33    |
| 2020-21 | 18   | 16     | 34    |
| 2019-20 | 18   | 16     | 34    |





### Gender Profile of the Non-Academic Staff 2021-2022

| Academic Year | Male | Female | Total |
|---------------|------|--------|-------|
| 2021-22       | 32   | 5      | 37    |
| 2020-21       | 32   | 6      | 38    |
| 2019-20       | 33   | 6      | 39    |





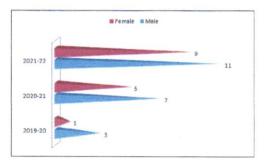


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## Participation of women faculty in faculty development programmes:

| Year    | No. Of      | Male | Female |
|---------|-------------|------|--------|
|         | Departments |      |        |
| 2021-22 | 16          | 11   | 9      |
| 2020-21 | 11          | 7    | 5      |
| 2019-20 | 4           | 3    | 1      |



## Participation of women in different committees in 2021-22:

| Committee     | Male | Female | Total |
|---------------|------|--------|-------|
| Finance       | 4    | 1      | 5     |
| IQAC          | 7    | 3      | 10    |
| Academic      | 10   | 10     | 20    |
| Gender        | 4    | 7      | 11    |
| Sensitization |      |        |       |
| Internal      | 6    | 3      | 9     |
| Complaints    |      |        |       |
| Anti -Ragging | 6    | 8      | 14    |
| Grievance     | 7    | 3      | 10    |
| Redressal     |      |        |       |
| Sports        | 12   | 3      | 15    |
| Cultural      | 3    | 8      | 11    |

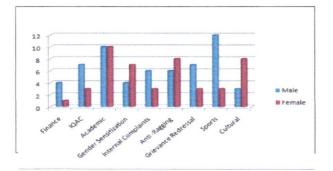
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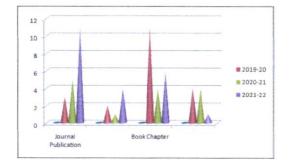
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## **Publications:**

| Year    | Journal<br>Publications | Journal<br>Publications | Chapters in books | Chapters<br>in books |
|---------|-------------------------|-------------------------|-------------------|----------------------|
|         | Male                    | Female                  | Male              | Female               |
| 2021-22 | 11                      | 4                       | 6                 | 1                    |
| 2020-21 | 5                       | 1                       | 4                 | 4                    |
| 2019-20 | 3                       | 2                       | 11                | 4                    |



## Infrastructure:

There are numerous ways in which the vision for gender sensitivity has been adopted in the college. Utmost care is taken to ensure safety and security inside the college campus. The increasing number of female students shows a positive outlook in this regard. This helps us focus on women empowerment too.

- There are separate Common Rooms for girl students and staff members, both teaching and non-teaching.
- Basic sanitation facility in the form of toilets is available in all the buildings.





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- Separate washrooms for academic and non-academic staff are available in each building.
- A medical room with a doctor is available in the campus. In case of emergency, students are escorted to the nearby Tulip Nursing Home.
- Gymnasium facility is available to students, faculty members and administrative staff daily.
- The College canteen caters to the students, teaching as well as non-teaching members.
- Photocopiers are available in the college buildings for the convenience of all stakeholders.
- Braille books are available in the college library for the visually-impaired.
- Ramps at the entrance of the different buildings and an elevator help the speciallyabled persons visiting and working in the college.

In the year 2018, the Sexual Harassment cell was renamed The Internal Complaints Committee, and during the pandemic, a similar kind of complaint was raised by a few female students who were not conversant with the real meaning of the word ragging, but this was resolved when the faculty members explained it to them.

## **Organization and Management:**

- Women employees of the institution do not face any problem when applying for Child Care Leave. During the last 3 years, 3 faculty members had availed of this facility.
- Number of gender sensitization programmes conducted. Number of women- related themes and topics taken up for discussion and debates:





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# Activities of the Gender sensitization Sub Committee:

| Session | Date of Event | Events/ Programs                                                                                                                                                   |
|---------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         |               | Awareness Programme on                                                                                                                                             |
| 2017-18 | 21.08.2017    | Human Trafficking by                                                                                                                                               |
|         |               | Swayansiddha                                                                                                                                                       |
| 2017-18 | 27.11.2017    | Seminar on Gender                                                                                                                                                  |
| 2018-19 | 6.9.2018      | Gender Equality: Vision or<br>Reality                                                                                                                              |
| 2018-19 | 8.3.2019      | New Woman: Opportunities<br>and Challenges                                                                                                                         |
| 2019-20 | 2.11.19       | Poster Competition on<br>Women's Position in<br>Contemporary India                                                                                                 |
| 2019-20 | 2.12.19       | Academic Discussion on<br>Women's Writing                                                                                                                          |
| 2019-20 | 13.03.2020    | Awareness Programme on<br>Women's Trafficking in<br>South 24 parganas                                                                                              |
| 2020-21 | 27.08.2020    | State Level Webinar titled<br>"A Young man Like<br>Themselves: Mary<br>Wollstonecraft and Feminist<br>Foremothers" along with<br>IQAC and Department of<br>English |
| 2020-21 | 30.06.2021    | Interactive Session with<br>girls belonging to this<br>institution in a tell-all<br>programme titled '<br>AmaderKotha' (Our Story)                                 |
| 2021-22 | 08.03.2022    | Celebration of Women's<br>Day with Poetry Reading<br>Session<br>Title of the Programme-<br>Celebration of Womanhood                                                |

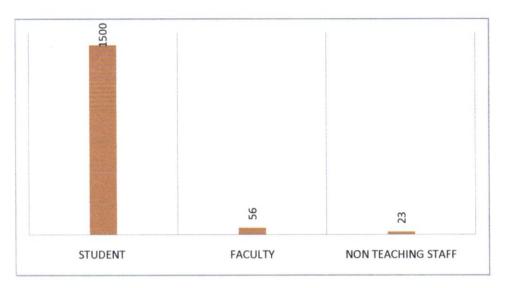
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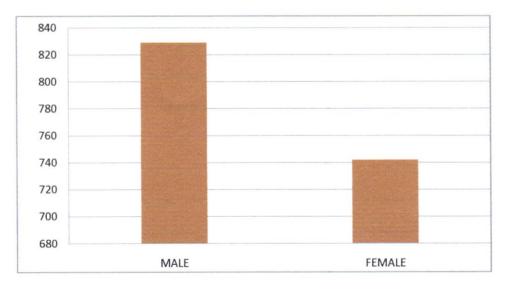
PRINCIPAL Dhruba Chand Halder College P.O.- D. Barasat, P.S.- Jaynugar South 24 Parganas, Pin- 743372 1. Are you a Student/Faculty/Non-teaching staff (1500-56-23)

| STUDENT        | 1500 |
|----------------|------|
| FACULTY        | 56   |
| NON TEACHING S | 23   |



2. Are you a Female/Male? ( 798+28+3 female: 702+28+12 Male)

| MALE   | 829 |
|--------|-----|
| FEMALE | 742 |



3. Is there a documented policy to deal with sexual harassment?

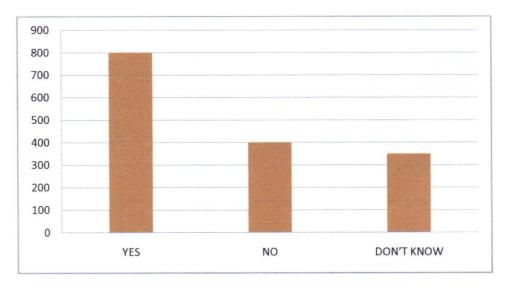




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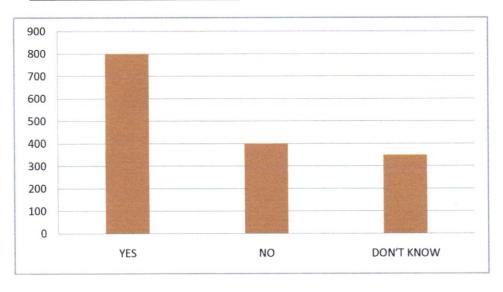
# Yes/No/Don't know (800-400-350)

| YES        | 800 |
|------------|-----|
| NO         | 400 |
| DON'T KNOW | 350 |



4. Is the policy on sexual harassment available on the website? Yes/No/Don't know

| YES        | 800 |
|------------|-----|
| NO         | 400 |
| DON'T KNOW | 350 |



5. Is there any Committee to prevent sexual harassment in the

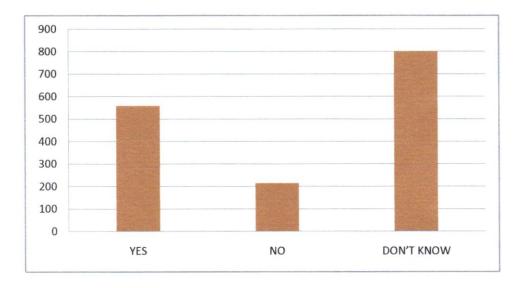




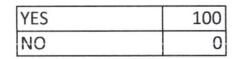
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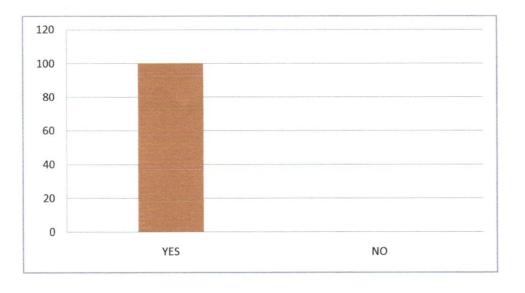
# campus? Yes/No/Don't know

| YES        | 558 |
|------------|-----|
| NO         | 215 |
| DON'T KNOW | 800 |



6. Are CC Cameras installed in the campus? Yes/No





7. Are Orientation Programmes conducted at the commencement of



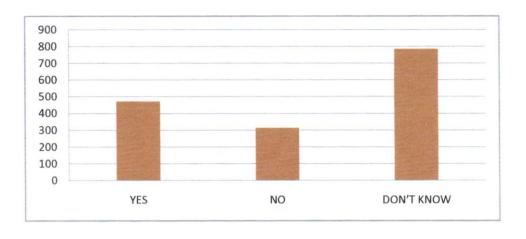


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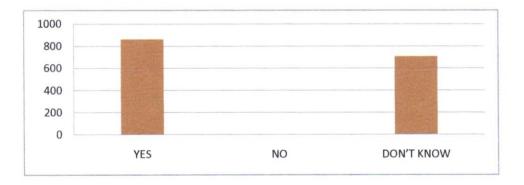
# each academic session? Yes/No/Don't know

| YES        | 471 |
|------------|-----|
| NO         | 314 |
| DON'T KNOW | 785 |



8. Is there any complaint box in the campus? Yes/No/Don't know

| YES        | 864 |
|------------|-----|
| NO         | 0   |
| DON'T KNOW | 707 |



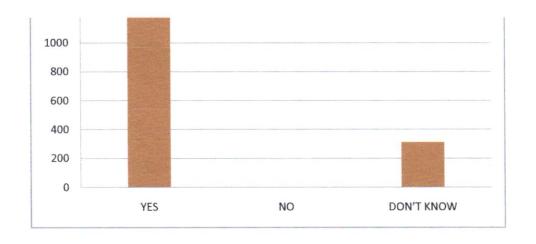
9. Are Gender Sensitization Programmes held in the campus? Yes/No/Don't know

| YES        | 1256 |
|------------|------|
| NO         | 0    |
| DON'T KNOW | 314  |



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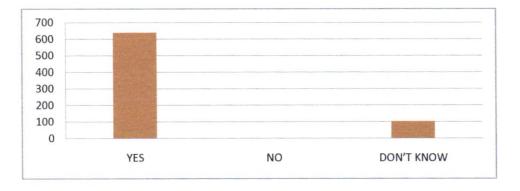


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10. Is sanitary napkin vending machine available in the girls; Common room? Yes/No

| (OUT OF 742 STAI | KE HOLD | ERS) |
|------------------|---------|------|
| YES              | 640     |      |
| NO               | 0       |      |
| DON'T KNOW       | 102     |      |

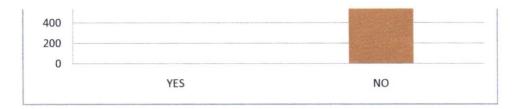
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11. Do you face discrimination of gender in the sports field? Yes/No



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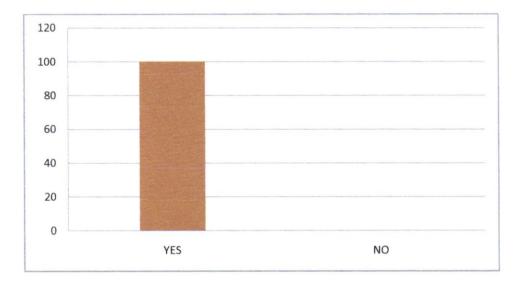
12. Are libraries and laboratories gender neutral? Yes/No

| YES | 100 |
|-----|-----|
| NO  | 0   |

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# DHRUBA CHAND HALDER COLLEGE DAKSHIN BARASAT SOUTH 24 PARGANAS



# REPORT ON ENERGY, ENVIRONMENT & GREEN AUDIT, 2021-22

# **PREPARED BY:**

LOKMATA RANI RASHMONI MISSION NIMPITH 24 PARGANAS

# ACKNOWLEDGEMENT

Lokmata Rani Rashmoni Mission thanks the management of Dhruba Chand Halder College for assigning the work of Green Audit to the organization. We appreciate the co-operation extended to us for completion of the green audit. We thank the Principal, Dr. Satyabrata Sahoo for having confidence in us. We also thank the teaching & supporting Staff of College for giving us necessary inputs to carry out the work of Green Audit.. We are also thankful to other staff members who were actively involved while collecting the data and conducting field measurements.

# DISCLAIMER

The Green Audit Team of has prepared this report for DHRUBA CHAND HALDER COLLEGE, based on input data submitted by the representatives of college. It is further informed that the conclusions are arrived at, are estimates and that the organization has no other responsibility in case of any loss arising from these data. Lokmata Rani Rashmoni Mission also confirms that during this audit, no environmental monitoring was done with the help of instruments.

The entire report is compiled by Mr Amitavo Roy, Lead Auditor.

The report is certified by Mr Suman Nandy, Lead Auditor, CISA, CISSP, ITIL (Foundation), KAHAN TECHNOLOGIES.



PRINCIPAL Dhruba Chand Halder College P.O.- D. Barasat, P.S.- Jaynagar South 24 Parganas, Pin. 743372

Amitava Ray

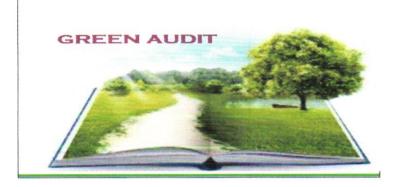
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# **GREEN AUDIT**



Green Audit is a process of systematic identification, quantification, and analysis of various components constituting the environment within a particular campus. It aims to analyze these environmental practices which results in the creation of an eco-friendly ambience.

## Green audit can be a useful tool for a college to determine:

- how and where most energy or water or resources are used
- the type and volume of waste generated in the campus.

Based on the findings, the college can devise ways and means to introduce measures for conservation of electricity; elements which can be used for a recycling project or to improve waste minimization plan.

It can create health consciousness and promote environmental awareness, values and ethics. It makes the staff and students understand the Green impact on the campus better.

#### Main Objectives of Green Audit are:

- Consideration of the Geographical Location
- Taking account of the Botanical diversity

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General Secretary LOKAMATA RANI RASHMCNI MISSION P.O.- Nimpith Ashram, South 24 Parganas Pin - 743338

- Studying Energy Consumptions
- Analyzing the Waste disposal system
- To introduce and create awareness among stakeholders to the real concerns of environment and its Sustainability.
- To cut down the threats posed to human health.
- To bring out a status report on environmental compliance.

#### Methodology:

For the preparation of a report on the Green Audit, the institution had to prepare questionnaires on the different aspects in the campus; conduct physical verification of the campus; document and analyze the resources and their usage; study and recommend measures of optimum utilization and conservation of resources.

The study covered the following areas to summarize the present status of environment management in the campus:

- Water Management
- Waste Management (solid, liquid & e-waste)
- Energy Management
- Management on Carbon Foot-print
- Green area management

**Observations and Recommendations:** 

# Water Management

Water Sources:

Number of Pumps available: 4

Average daily running Hours: 30-45 Minutes per pump

Average daily consumption of water (litre): 15000

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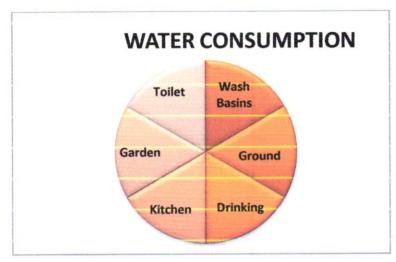
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Total yearly consumption (kilolitre): 3,750

This includes usage in and for:

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Toilets, wash basins, drinking, kitchen and canteen, garden and ground.



Dhruba Chand Halder College remains open for 250 days a year on an average. Average discharge of water per minute of each of the four pumps = 93 Litres per Minute Average discharge of water per minute by four pumps = 93X 4 = 372 Litres per Minute. Average yearly discharge of water per minute: 93 kl.

### **Observations:**

- The study observed that the major sources of water in college and the hostel are 4 pumps, out of which, one is a submersible one. Water is used for drinking purpose, toilets, and gardening. During the survey, no loss of water was observed. There were neither any leakages, but overflowing of water from one of the overhead tanks happens.
- The college recycles rain water for recharging through rain water harvesting.
- The college fountain cum aquarium uses pond water so that less fresh water is consumed.

#### **Recommendations:**

- ✓ Recycling of rain water for using in toilet flushes is strongly recommended.
- ✓ Gardens should be watered by using drip/sprinkler system to minimize water waste.

General Secretary LOKAMATA RANI RASHMONI MISSION P.O.- Nimpith Ashram, South 24 Parganas Pin - 743338

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# Waste Management

Waste production, recycling and disposal of different wastes like paper, food, plastic, biodegradable, glass etc come under the purview of Waste Management. Types of wastes in the campus include: solid, liquid, chemical, biological and e- wastes. These resources are channeled into better service through recycling, repair, and reuse. Wastes that cannot be recycled, re-used are properly disposed off, by proper scientific methods.

### Observations

In the campus, waste is generated from paper and cardboard boxes, plastic materials, foils, sewage and sullage, chemicals, biological and medical materials and electronic gadgets. Leaf litter is also a major solid waste generated in the campus. The waste is segregated at source by providing separate dustbins and pits. Specimen disposal pit, leaf litter composting bed, chemical waste pit and e-waste disposal bins, along with common dustbins have been put in place in the campus, and are functional. Single sided used papers reused for writing and printing in all departments and recently both side printing is carried out as per requirements.

## Category wise solid waste generation at college (kg / month)

| Category of Waste | Generation of Waste per year |
|-------------------|------------------------------|
| Paper Waste       | 15 quintals                  |
| Plastic Waste     | 50 kg                        |
| E-Waste           | 164 kg                       |
| Glass Waste       | 15 kg                        |
| Wood Waste        | 2400 kg                      |
| Chemical Waste    | 125 litre                    |
| Bio Waste         | 30 kg                        |
| Leaf litter Waste | 90 kg                        |

General Secretary<sup>7</sup> LOKAMATA RANI RASHMCNI MISSION P.O.- Nimpith Ashram, South 24 Parganas Pin - 743338

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## Ways of disposal of waste materials:

| Type of Waste Disposal/Recycling Method |                                                                           |  |  |
|-----------------------------------------|---------------------------------------------------------------------------|--|--|
| Paper Waste                             | <ul><li>Reused for reprinting</li><li>Sold off to scrap dealers</li></ul> |  |  |
| Plastic Waste                           | Sold off to vendors                                                       |  |  |
| E Waste                                 | Collected and recycled by HULLADEK                                        |  |  |
| Glass Waste                             | Sold off to junk dealers                                                  |  |  |
| Wood Waste                              | Recycled to make furniture                                                |  |  |
| Chemical Waste                          | Collected in an underground tank after neutralizing                       |  |  |
| Bio Waste                               | Collected in a disposal pit for degradation                               |  |  |
| Leaf litter                             | Used for preparing compost soil.                                          |  |  |
|                                         |                                                                           |  |  |



Leaf Litter Compost Pit of Dhruba Chand Halder College

## Sewage & Sullage discharge System

The college has a system in place, to discharge sewage and sullage generated through proper waste management system that includes soak-pits etc.

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## **Rain Water Harvesting**

The college has a proper rain water harvesting system.

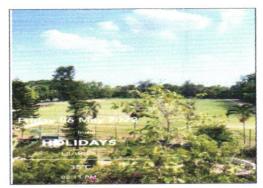
Recommendations

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- Reduce the absolute amount of waste of stationery that is produced from college offices by digitalization of documents.
- Vermi-composting could be adopted on at least 300 sq. ft. of land.
- Rain water could be recycled for use in toilets and gardens.

# **Green Area Management**

This includes the plants, greenery, lawn and gardens in the campus and study the sustainability of the campus to ensure that green initiatives are followed for a sustainable environment. This also helps in ensuring that the Environmental Policy is enacted and enforced in the campus.



#### Trees in the Campus and their Effects

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| Sr.<br>No. | Local name             | Scientific name of the plant | Family         | Total No./Uses/<br>remark | Ecological impact                        |
|------------|------------------------|------------------------------|----------------|---------------------------|------------------------------------------|
| 1          | Mehogini<br>(baropata) | Swetenia mehogoni            | Meliaceae      | 21/ Timber wood           | Moderately negative<br>effect on ecology |
| 2          | MehoginiChotopa<br>ta) | Sweteniamacrophylla          | Meliaceae      | 18/Timber wood            | Moderately negative<br>effect on ecology |
| 3          | Jaam                   | Syzygiumcumini               | Myrtaceae      | 32/Fruit & fire<br>wood   | positive effect on ecology               |
| 4          | Senna                  | Cassia siamea                | Caesalpinaceae | 1/Medicinal plant         | positive effect on<br>ecology            |
| 5          | Bilatisiris            | Samania saman                | Mimosaceae     | 4/ Wood                   | positive effect on<br>ecology            |
| 6          | Eucalyptus             | Eucalyptus sp                | Myrtaceae      | 6/ Oil                    | negative effect on                       |
| 7          | Aam                    | Mangiferaindica              | Anacardiaceae  | 14/ Fruit and fire        | positive effect on                       |
| 8          | Kanthal                | Artocarpus heterophylla      | Moraceae       | 2 /Friut                  | positive effect on<br>ecology            |
| 9          | Chhatim                | Alstonia scoloris            | Apocyanaceae   | 1/ Native Tree            | positive effect on<br>ecology            |
| 10         | Kath badam             | Terminalia catappa           | Combritaceae   | 1/Native Tree             | positive effect on                       |
| 11         | Lombu                  | Dysoxylum alliacerum         | Meliaceae      | 1/Wood                    | positive effect on                       |

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|     |                         |                         |                | -                                | ecology                                      |
|-----|-------------------------|-------------------------|----------------|----------------------------------|----------------------------------------------|
| 12  | Aamra                   | Spondiasmombin          | Anacardiaceae  | 1/Fruit                          | positive effect on ecology                   |
| 13  | Narikel                 | Cocos nucifera          | Palmae         | 44/Fruit                         | Most successful in colonizing into new habit |
| 14  | Kadam                   | Anthocephaluscadamba    | Rubiaceae      | 6/Flower and<br>fruit            | Having + effect on C<br>sequestration        |
| 15  | Chaalta                 | Dilleniaindica          | Dilleniaceae   | 1/Fruit, Native<br>Tree          | positive effect on<br>ecology                |
| 16  | Bilati Jhau             | Casuarina equisitifolia | Cupuliferae    | 29/wood                          | negative effect on<br>ecology                |
| 17  | Sajina                  | Moringa oleifera        | Moringacear    | 1/ Medicinal plant               | positive effect on<br>ecology                |
| 18  | Arjun                   | Terminalia arjuna       | Combritaceae   | 3/Medicinal plant                | positive effect on<br>ecology                |
| 19  | Sundari                 | Heritiera fomis         | Sterculiaceae  | 1/Mangrove Plant                 | Mangrove plant                               |
| 20  | Segun                   | Tectona grandis         | Lamiaceae      | 2/ Wood                          |                                              |
| 21  | Jarul                   | Lagerostroemia speciosa | Lythraceae     | 5/ ornamental tree               | positive effect on<br>ecology                |
| 22  | Bakul                   | Mimusopse longi         | Sapotaceae     | 1, Flowering tree                | positive effect on<br>ecology                |
| 23  | Sissoo                  | Dalbergia sisso         | Papillionaceae | 12/ Wood                         | positive effect on                           |
| 24  | Simul                   | Bombax ceiba            | Bombaceae      | 1/ Fibre                         | positive effect on                           |
| 25  | Akashmoni               | Acacia auriculiformis   | Mimosaceae     | 3/ ornamental                    | negetive effect on                           |
| 26  | Radhachura              | Peltofo ruminermi       | Fabaceae       | 2/ Ornamental                    | positive effect on<br>ecology                |
| .27 | Debdaru                 | Polyalthia longifolia   | Annonaceae     | 27/ Ornamental                   | negative effect on<br>ecology                |
| .28 | Krishna chura           | Delonix regia           | Fabaceae       | 2/ Ornamental                    | positive effect on<br>ecology                |
| 29  | Aamloki                 | Phyllanthus embolika    | Phyllanthaceae | 2/Medicinally<br>important fruit | positive effect on<br>ecology                |
| 30  | Bohera                  | Terminalia bellirica    | Combritaceae   | 1/Med pl                         | positive effect on<br>ecology                |
| 31  | Champa                  | Michelia champaka       | Magnoliaceae   | 1/Med pl                         | positive effect on<br>ecology                |
| 32  | Rudrapalash             | Spathodea campanulata   | Bignnonaceae   | 1/Tree/Ornamental                | positive effect on<br>ecology                |
| 33  | Bottle brush            | Callistemon viminalis   | Myrtaceae      | 1/ Ornamental tree               | positive effect on<br>ecology                |
| 34  | Pink cassia             | Cassia javanea          | Fabaceae       | 1/Woody tree                     | positive effect on ecology                   |
| 35  | Palash                  | Butea monosperma        | Fabaceae       | 2/Woody Tree/                    | positive effect on<br>ecology                |
| 36  | Araucaria               | Araucaria heterophylla  | Auroiaceae     | 2/tree                           | negative effect on<br>ecology                |
| 37  | Amaltus/Bandar<br>lathi | Cassia fistula          | Fabaceae       | 1/ Ornamental Tree               | positive effect on<br>ecology                |

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| 8          | Panthapadap           | Ravenala madagascariensis | Arecaceae     | 5/ Exotic plant       | Exotic                        |
|------------|-----------------------|---------------------------|---------------|-----------------------|-------------------------------|
| 39         | Jhau                  | Thuja                     | Cupressaceae  | 2/ornamental          | positive effect on ecology    |
| 40         | Karabi                | Nerium indicum            | Apocyanaceae  | 1/ Flowering<br>plant | positive effect on ecology    |
| 41         | Neem                  | Azadirecta indica         | Meliaceae     | 1/Medicinal plant     | positive effect on ecology    |
| 12         | Jaba                  | Hibiscus rosasinensis     | Malvaceae     | 1/ Flowering<br>plant | positive effect on<br>ecology |
| 43         | Siuli                 | Nyctanthus arbortristis   | Oleaceae      | State Plant           | positive effect on<br>ecology |
| 44         | Kamini                | Murraya paniculata        | Rutaceae      | 1/ Flowering plant    | positive effect on ecology    |
| <b>4</b> 5 | Dalim                 | Punica granatum           | Punicaceae    | 1/ Fruit plant        | positive effect on ecology    |
| 46         | Lebu                  | Citrus sp                 | Rutaceae      | 1/ Fruit plant        | positive effect on ecology    |
| 47         | Rangan                | Ixora sp                  | Rubiaceae     | 1/ Flowering plant    | positive effect on ecology    |
| 48         | Sabeda                | Manilkara zapotica        | Sapotaceae    | 1/ Fruit plant        | positive effect on ecology    |
| 49         | Jamrul                | Syzygium samarangense     | Myrtaceae     | 1/ Fruit plant        | positive effect on ecology    |
| 50         | Ashoke                | Saraka asoka              | Fabaceae      | 1/Med Pl              | positive effect on<br>ecology |
| -51        | jui                   | Jasminum molle            | Oleaceae      | 1                     | positive effect on ecology    |
| 52         | Sirish                | Albizia pricera           | Fabaceae      | 1                     | positive effect on<br>ecology |
| 53         | Khirish               | Albizia lebbak            | Fabaceae      | 1                     | positive effect on<br>ecology |
| 54         | kagajphull            | Bougainvillea glabra      | Nyctanthaceae | 2/ ornamental         | positive effect on<br>ecology |
| 55         | Cycas male plant      | Cycas cercinalis          | Cycadaceae    | 1/Med Pl              | positive effect on<br>ecology |
| ,<br>56    | cycas female<br>plant | Cycas roxberghii          | Cycadaceae    | 1/Med Pl              | positive effect on<br>ecology |
| 57         | Swetchandan           | Santalum album            | Santalaceae   | 1/Med Pl              | positive effect on<br>ecology |
| 58         | Lal Chandan           | Pterocarpus santalinus    | Fabaceae      | 1/Med Pl              | positive effect on<br>ecology |
| 59         | Nisinda               | Vitex negundo             | Lamiaceae     | 1/Med Pl              | positive effect on<br>ecology |

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| 60 | Labanga                     | Syzygium arometicum            | Myrtaceae             | 1/Med Pl | positive effect on<br>ecology |
|----|-----------------------------|--------------------------------|-----------------------|----------|-------------------------------|
| 61 | karpur                      | Cinnamomum camphora            | Lauraceae             | 1/Med Pl | positive effect on ecology    |
| 62 | Satamul                     | Asparagus resimosus            | Asparagacear          | 1/Med Pl | positive effect on ecology    |
| 63 | Antamul                     | Hemidesmusi ndicus             | Apocyanaceae          | 1/Med Pl | positive effect on ecology    |
| 64 | Multivitamin                | Sauropus androgynus            | Asteraceae            | 1/Med Pl | positive effect on ecology    |
| 65 | Sarpagandha                 | Rauvalfia sarpentina           | Apocyanaceae          | 1/Med Pl | positive effect on<br>ecology |
| бб | Ayapan                      | Eupatorium triplinerve         | Compositae            | 1/Med pl | positive effect on<br>ecology |
| 67 | Vringa raj                  | Eclipta alba                   | Asteraceae            | 1/Med pl | positive effect on<br>ecology |
| 68 | Tulsi                       | Ocimum sanctum                 | Lamiaceae             | 1/Med pl | positive effect on<br>ecology |
| 69 | Kalmegh                     | Andrographis paniculata        | Acanthaceae           | 1/Med pl | positive effect on<br>ecology |
| 70 | Thankuni                    | Centella asiatica              | Apiaceae              | 1/Med pl | positive effect on<br>ecology |
| 71 | Olotkambal                  | Abroma augusta                 | Malvaceae             | 1/Med pl | positive effect on<br>ecology |
|    |                             | Weed / Her                     | bs (Medicinal Plants) |          |                               |
| 72 | Alligator Weed              | Alternanthera<br>philoxeroides | Amaranthaceae         | 1/Med pl | positive effect on ecology    |
| 73 | Cape Jasmine                | Phylla nodiflora               | Verbinaceae           | 1/Med pl | positive effect on<br>ecology |
| 74 | Hairy Coneflower            | Hemigraphis hirta              | Acanthaceae           | 1/Med pl | positive effect on<br>ecology |
| 75 | Toothed Dock                | Rumex dentatus                 | Polygonaceae          | 1/Med pl | positive effect on<br>ecology |
| 76 | Asthma-plant                | Euphorba hirta                 | Euphorbiaceae         | 1/Med pl | positive effect on<br>ecology |
| 77 | Creeping<br>Primrose Willow | Ludwigia repens                | Onagraceae            | 1/Med pl | positive effect on<br>ecology |
| 78 | Goat Weed                   | Pouzolzia indica               | Utricaceae            | 1/Med pl | positive effect on<br>ecology |

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| 79         | Joshthimadhu                 | Scoparia dulsis           | Plantaginaceae  | 1/Med pl | positive effect on<br>ecology |
|------------|------------------------------|---------------------------|-----------------|----------|-------------------------------|
| 80         | Bontamak                     | Nicotiana plumbaginifolia | Solanaceae      | 1/Med pl | positive effect on ecology    |
| 81         | Water Pepper                 | Polygonum hydropiper      | Polygonaceae    | 1/Med pl | positive effect on ecology    |
| 82         | American Black<br>Nightshade | Solanum amaricanam        | Solanaceae      | 1/Med pl | positive effect on ecology    |
| 83         | Telakochu                    | Coccinia grandis          | Cucurbitaceae   | 1/Med pl | positive effect on<br>ecology |
| 84         | Lettuce                      | Blumea laura              | Asteraceae      | 1/Med pl | positive effect on<br>ecology |
| 85         | Bon Sharshe                  | Rorripa indica            | Brassicaceae    | 1/Med pl | positive effect on<br>ecology |
| 86         | Native<br>Gooseberry         | Physalis minima           | Solanaceae      | 1/Med pl | positive effect on<br>ecology |
| 87         | Ghentu                       | Clerodendron viscosum     | Verbinaceae     | 1/Med pl | positive effect on ecology    |
| 88         | Flowering Plant              | Synendrella nodiflora     | Asteraceae      | 1/Med pl | positive effect on ecology    |
| <b>8</b> 9 | Keshut                       | Eclipta alba              | Asteraceae      | 1/Med pl | positive effect on<br>ecology |
| 90         | Iron Weed                    | Vernonia cineria          | Asteraceae      | 1/Med pl | positive effect on<br>ecology |
| 91         | Latapata                     | Mikenia scandens          | Asteraceae      | 1/Med pl | positive effect on<br>ecology |
| 92         | Chinese Brake<br>Fern        | Pteris                    | Pteridaceae     | 1/Med pl | positive effect on<br>ecology |
| 93         | Wood Ferns                   | Dryopteris                | Dryopteridaceae | 1/Med pl | positive effect on<br>ecology |
| 94         | Kochu                        | Calocasia esculenta       | Araceae         |          | positive effect on<br>ecology |

#### Observations

- The Campus has many trees (species) in its vicinity. To maintain biodiversity, various tree plantation programmess are organized in the college campus and surrounding areas through NSS (National Service Scheme) unit and other departments.
- The plantation programmes include planting of various types of indigenous species of ornamental and medicinal wild plant species, timber yielding plants which also have high oxygen releasing and carbon-di-oxide reducing potential. An increase in the number of plants also encourages increased habitat of birds, animals and insects, which influences

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the bio-diversity of the campus, and plays a profound role in pollination and ecological balance.

**Energy Use and Conservation** 

This indicator addresses energy consumption, energy sources, energy monitoring, lighting, appliance, and vehicles.

Table showing the Electricity Consumption details of College Campus in the 2021-22 Session:

April & May--- 4887 units

June & July--- 4213 units

August & September--- 4518 units

October & November--- 3753 units

December & January --- 16,187 units

February & March--- 15, 328 units

April & May---4265 units

Total --- 53,151 units

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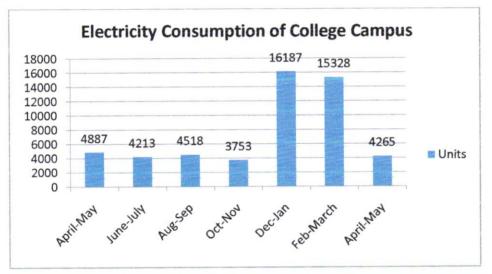


Table showing the Electricity Consumption details of the Boys' Hostel

1 April - May, 2021

1203 units

2. June-July, 2021

3. Aug-Sep, 2021

4. Oct-Nov, 2021

5. Jan-March, 2022

6. April-June, 2022

1006 units 900 units

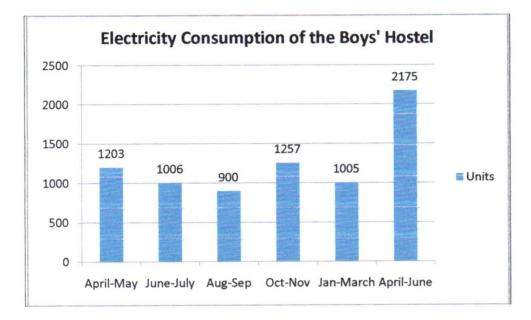
1257 units

1005 units

2175 units

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## FUEL CONSUMPTION

## LPG, Diesel, Consumption details:

No. of Generator sets: 4

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- Quantity of diesel consumed per month:
- July to September: 600 litres
- October: 100 litres

November to December: 350 litres

January: 150 litres

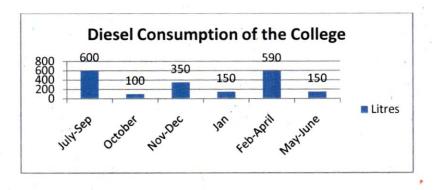
February to April: 590 litres

- May to June: 150 litres
- Total: 1940 litres

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## Gas Cylinders Used:

Yearly one and half LPG cylinder is consumed in the laboratories of the different departments.

14 kg X 1.5 = 21 Kg.

Since the Canteen is run by an external agency, its fuelconsumption could not be estimated by the team.

### Recommendations

- In campus premises electricity should be shut down from main building supply after official time, to prevent power loss due to eddy current.
- Installation of LED lamps instead of CFL and replacing the old tube lights with the new LED tubes.
- 5-star rated Air Conditioners, Fans and CFLs should be used.
- Solar panels should be installed immediately.

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